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Appl. No. 10/690,818

December 6, 2007

REMARKS/ARGUMENTS

In response to the Examiner's fair criticism that applicants' previous arguments are not commensurate with claim limitations or requirements, applicants have amended their independent claims 6, 14 and 37 to more particularly point out their claimed subject matter and added some new dependent claims still more particularly pointing out their claimed subject matter. Applicants request the Examiner to reconsider this application in view of the claim amendments and the following arguments directed to positive claim limitations.

The Examiner contends that a "handheld video game system" can be one that includes any handheld element such as a handheld controller. Applicants have accordingly amended their independent claims to exclude the SNES emulated by the applied Snes9X emulator from meeting the recited claim language.

The Examiner concedes that the SNES9x is silent regarding ROM pages, but relies on Dahl et al for the missing teachings. What Dahl et al teaches is an emulator that allows a personal computer memory to emulate an IBM System/36 mass storage device. This is what an IBM System 36 looks like:

LINK

Appl. No. 10/690,818

December 6, 2007



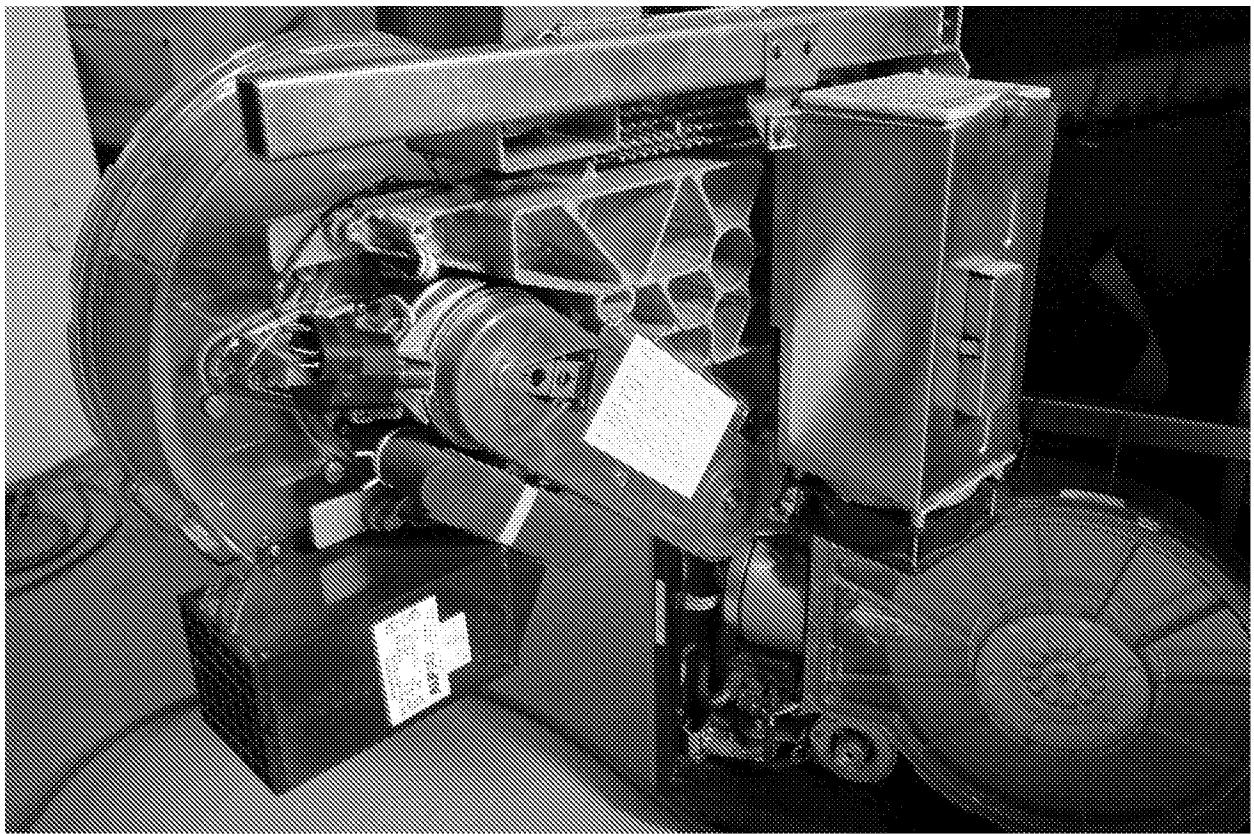
An IBM System/36 is not a handheld video game system as claimed.

Furthermore, the IBM System/36 ran its programs from a disk drive that looked like this:

LINK

Appl. No. 10/690,818

December 6, 2007



The IBM System/36 mass storage (DASD) did not provide ROM pages as claimed. It was a read-write device and had a different file storage structure, as Dahl makes abundantly clear. Applicants are at a loss to understand how the Examiner believes teachings relating to emulating the read/write disk drive of an IBM System/36 could possibly be instructive to someone skilled in the art trying to emulate a handheld video game system page-based ROM.

Furthermore, applicants respectfully submit that their claimed technique for emulating a page-based ROM is in no way taught or suggested by Dahl. The Examiner emphasizes page swapping, caching and identical access techniques. Office Action at

LINK

Appl. No. 10/690,818

December 6, 2007

3-4. But applicants' claims are not directed to caching or page swapping per se, which are old and well known.

For example, Dahl's Figure 5 cache memory is a separate memory used just for caching. In contrast, applicants have amended their claims to require duplication to occur "across said pages." The Examiner apparently was reading applicants' prior claim language as being broad enough to cover any duplication (e.g., in a cache memory during execution). Dahl clearly does not teach or suggest the current claim language with his conventional cache memory teachings.

Furthermore, applicants respectfully disagree with the Examiner's conclusions that it would have been "obvious to one of ordinary skill in the art at the time of invention to utilize the paging architecture and duplication of ROM pages in order to minimize address translation and paging overhead during emulation" and that "Dahl would create a game system that has a pointer table system that performs the functions as claimed by the applicant." See Office Action at 4. These conclusions are not supported by the evidence of record. Dahl was solving a different problem of emulating a hard disk drive file system. Dahl says nothing about how to emulate a page-based Read Only Memory. The Examiner's comments on page 18 of the Office Action are in any event obviated by the claim amendments which more particularly point out applicants' claimed subject matter.

Applicants have limited their dependent claim 23 to "using said pointer table system to control memory access by remapping memory access instructions into function calls." This is not taught or suggested by Dahl.

LINK

Appl. No. 10/690,818

December 6, 2007

With respect to claim 29 (“modeling each handheld video game device native instruction register as a union of byte, word and long register formats”), the Examiner has cited no factual evidence in support of his hindsight conclusion that this would have been obvious. See paragraph 111 of applicants’ specification (“The three structures 356, 358, 360 are bundled into a union so that emulator 100 can access a particular register as a byte, a word or a long word as needed.”) The Examiner appears to be ignoring or overlooking the word “union.”

The Examiner relies on claim 38 of Nishiumi as disclosing the subject matter of claim 18 herein. However, what dependent claim 18 herein as amended requires is “modeling a virtual liquid crystal display controller state machine corresponding to said handheld liquid crystal display to maintain real time synchronization” This claim language requires more than simply displaying something on a liquid crystal display—it requires modeling a virtual liquid crystal display controller state machine (e.g., so that a target platform that does not have the same liquid crystal display can nevertheless provide a synchronized display). The Examiner’s reliance on Nishiumi is thus misplaced.

The newly added dependent claims are supported by for example ¶¶83 and 88-90 of applicants’ originally filed specification. These newly added dependent claims further patentably define the claimed subject matter over the applied references.

All outstanding issues have been addressed and this application is in condition for allowance. Should any minor issues remain outstanding, the Examiner should contact the undersigned at the telephone number listed below so they can be resolved expeditiously without need of a further written action.

LINK

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December 6, 2007

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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